REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

No claims are requested to be cancelled, amended, or added.

A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

In the Office Action, claims 16 and 17 were rejected under 35 U.S.C. § 102(e) as being anticipated by Iwase (U.S. Patent No. 6,255,008). In the Response to Arguments on page 4 of the Office Action, it was asserted that no arguments concerning claims 16 and 17 were submitted and thus the rejection stands. However, in the Advisory Action mailed on April 29, 2005, it was indicated that the Reply filed on April 14, 2005 overcame the rejection of claims 16 and 17, and claims 16 and 17 were allowed. Accordingly, it is not understood why the rejection of claims 16 and 17 has been reinstituted. Nevertheless, Applicant submits that claims 16 and 17 are patentably distinguishable from Iwase.

Claim 16 recites that fuel cell vehicle comprises, *inter alia*, a controller functioning to operate the fuel cell power system in the idle operation state until the charge state of the battery reaches the predetermined lower limit, when the charge state of the battery reaches the predetermined upper limit. Claim 17 recites that fuel cell vehicle comprises, *inter alia*, a controller functioning to stop the fuel cell power system until the charge state of the battery reaches the predetermined lower limit, when the charge state of the battery reaches the predetermined upper limit.

In contrast to claim 16, Iwase fails to disclose or suggest operating the fuel cell power system in the idle operation state until the charge state of the battery reaches the predetermined lower limit, when the charge state of the battery reaches the predetermined upper limit. In fact, the term "idle" does not appear anywhere in Iwase, nor is there any mention of operating the fuel cell in an idle operation state or anything other than a normal operation state when the charge state of the reaches a predetermined upper limit. Rather,

regardless of whether the battery 40 in Iwase has a 100% SOC, the fuel cell 36 is operated to supply power to the load 46. Claim 16 is therefore patentably distinguishable from Iwase.

In contrast to claim 17, Iwase fails to disclose or suggest stopping the fuel cell power system until the charge state of the battery reaches the predetermined lower limit, when the charge state of the battery reaches the predetermined upper limit. There is nothing in Iwase that ever discloses or suggests stopping the fuel cell. Rather, Iwase discloses that the fuel cell 36 always provides power to the load 46. Claim 17 is therefore patentably distinguishable from Iwase.

Claims 1-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwase in view of Takechi et al. (U.S. Patent No. 5,154,986). Claim 1 recites that a fuel cell vehicle comprises a fuel cell power system which generates power using hydrogen and oxygen, a motor for a vehicle drive which runs by receiving the power supplied from the fuel cell power system, and a controller functioning to compute an electrical load demand required for running the vehicle, operate the fuel cell power system under a constant load regardless of the electrical load demand, when the electrical load demand is smaller than a predetermined load, the predetermined load corresponding to the constant load and the constant load being larger than a load in an idle operation, and operate the fuel cell power system under a load according to the electrical load demand, when the electrical load demand is larger than the predetermined load.

In Iwase, the SOC becomes constant only when the battery 40 is disconnected from the inverter 44. According to Fig. 3, the battery 40 is disconnected at S30 and S52. In particular, at step S30, if the SOC is 100%, the control unit 20 controls the cutoff switch 41 to turn the cutoff switch 41 off so that the battery 40 is electrically disconnected from the inverter 44, the bypass 48, and the DC/DC converter 38 (column 8, lines 5-8). Similarly, at step S52, if it is determined that the SOC is greater than 60%, the control unit 20 also controls the cutoff switch 41 to turn the cutoff switch 41 off so that the battery 40 is electrically disconnected from the inverter 44, the bypass 48, and the DC/DC converter 38 (column 10, lines 35-40).

In this state, where the fuel cell 36 is connected to the inverter 44 via the bypass 48 while the battery 40 is disconnected from the inverter 44, the power corresponding to the required output of the inverter 44 is extracted from the fuel cell 36 and is supplied to the inverter 44 via the bypass 48 without being conducted via the DC/DC converter 38 and without being stored into the battery 40 (column 8, lines 15-23 and column 10, lines 48-56). This means the load of the fuel cell 36 varies according to the required output of the inverter 44, even when the SOC remains at a constant level.

Moreover, Iwase merely discloses comparing the required output of the inverter 44 to the expected output power of the fuel cell 36 to determine if charge from the battery 40 is needed. In other words, Iwase does not compare the required output to a predetermined load to determine whether to operate the fuel cell under a constant load or a load according to the electrical load demand. Iwase therefore fails to disclose or suggest operating the fuel cell power system under a constant load regardless of the electrical load demand when the electrical load demand is smaller than a predetermined load, and operating the fuel cell power system under a load according to the electrical load demand when the electrical load demand is larger than the predetermined load as recited in claim 1.

Furthermore, in the rejection, it is asserted that the predetermined load (or value) is the 60% SOC. The SOC is the state of charge of the battery 40, and the 60% value is used to determine whether the battery 40 is sufficiently charged or not. However, Iwase clearly fails to disclose or suggest comparing the required output (i.e., the electrical load) to the 60% value, and does not use the 60% value to determine whether to operate the fuel cell under a constant load or a load according to the electrical load demand. Put differently, the SOC is not the electrical load demand, and the 60% value is not a predetermined load. Rather, the SOC is a measure of charge stored in the battery, which has nothing to do with the electric load demand, and the 60% value is a cutoff level for charging the battery, not a predetermined load to determine how to operate the fuel cell power system. Accordingly, for all of these reasons, claim 1 is patentably distinguishable from Iwase.

Even if combinable, Takechi et al. fails to cure the deficiencies of Iwase. Takechi et al. merely discloses a controller unit that controls a relay to be on until certain conditions are

met to achieve a safe shut down of the fuel cell (see col. 3, line 59 – col. 4, line 50), and has nothing to do determining whether to operate the fuel cell under a constant load or a load according to the electrical load demand. Accordingly, claim 1 is also patentably distinguishable from the combination of Iwase and Takechi.

Finally, it is noted that in the Advisory Action mailed on April 29, 2005, it was asserted that claim 1 reads on a conventional fuel cell hybrid which idles at a constant level when the accelerator pedal is not pressed and operates according to the degree that the accelerator pedal is pressed. However, claim 1 recites operating the fuel cell power system under a constant load regardless of the electrical load demand, when the electrical load demand is smaller than a predetermined load, the predetermined load corresponding to the constant load and the constant load being larger than a load in an idle operation. Thus, in contrast to claim 1, the conventional fuel cell hybrid operates the fuel cell at a load in an idle operation, not a constant load larger than a load in an idle operation. Accordingly, claim 1 is also patentably distinguishable from the convention fuel cell hybrid.

Claims 2-15 are also patentably distinguishable from Iwase by virtue of their dependency from claim 1, as well as their additional recitations.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of

papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date 12/8/05

By _____ Reg. No. 43,250

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